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TECH CENTER 1600/2900



1655

13

RAW SEQUENCE LISTING

DATE: 01/24/2002

PATENT APPLICATION: US/09/525,361A

TIME: 10:11:07

Input Set : A:\A67860-3.txt

Output Set: N:\CRF3\01242002\I525361A.raw

p5

ENTERED

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3 <110> APPLICANT: MACK, DAVID
4 GISH, KURT
6 <120> TITLE OF INVENTION: NOVEL METHODS OF DIAGNOSING AND TREATING BREAST CANCER,
7 COMPOSITIONS, AND METHODS OF SCREENING FOR BREAST
8 CANCER MODULATORS
10 <130> FILE REFERENCE: A-67860-3/DJB/JJD
12 <140> CURRENT APPLICATION NUMBER: US 09/525,361A
13 <141> CURRENT FILING DATE: 2000-03-15
15 <150> PRIOR APPLICATION NUMBER: US 09/268,865
16 <151> PRIOR FILING DATE: 1999-03-15
18 <150> PRIOR APPLICATION NUMBER: US 09/450,810
19 <151> PRIOR FILING DATE: 1999-11-29
21 <150> PRIOR APPLICATION NUMBER: US 09/453,137
22 <151> PRIOR FILING DATE: 1999-12-02
24 <150> PRIOR APPLICATION NUMBER: US 09/439,878
25 <151> PRIOR FILING DATE: 1999-11-12
27 <150> PRIOR APPLICATION NUMBER: US 09/440,370
28 <151> PRIOR FILING DATE: 1999-11-12
30 <150> PRIOR APPLICATION NUMBER: US 09/440,493
31 <151> PRIOR FILING DATE: 1999-11-15
33 <150> PRIOR APPLICATION NUMBER: US 09/520,478
34 <151> PRIOR FILING DATE: 2000-03-08
36 <150> PRIOR APPLICATION NUMBER: US 09/440,676
37 <151> PRIOR FILING DATE: 1999-11-16
39 <150> PRIOR APPLICATION NUMBER: US 09/440,677
40 <151> PRIOR FILING DATE: 1999-11-16
42 <160> NUMBER OF SEQ ID NOS: 62
44 <170> SOFTWARE: PatentIn Ver. 2.1
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47 <211> LENGTH: 3264
48 <212> TYPE: DNA
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55 ttctgtgtgc tgagtctctt cactgagagg atgtgcatcc aggggagtc gttcaacgtc 240
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61 ttcctccatg aagtcactgt gggaaacagg ctcatccgcc tcttctccaa tggcacggtc 600

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64 gagttcacct ggctgagagg gaacgactct gtgctgggac tggaacacct gcggcttgct 780
65 cagtacacca tagagcggta tttcacctta gtcaccagat cgcagcagga gacaggaaat 840
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104 tatgagccaa tcatatttgt gattttttta aaaaagtta aaaggaaata tctgttctga 3180
105 aaccacactt aagcattgtt tttatataaa aacaatgata aagatgtgaa ctgtgaaata 3240
106 aatataccat attagctacc cacc
109 <210> SEQ ID NO: 2
110 <211> LENGTH: 1323
111 <212> TYPE: DNA
112 <213> ORGANISM: Homo sapiens

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117 tttgagaacc tcacagcagg atataacaaa tttctcaggc ccaatttttg tggagaaccc 180
118 gtacagatag cgctgactct ggacattgca agtatctcta gcatttcaga gagtaacatg 240
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122 cgccctcttct ccaatggcac ggtcctgtat gccctcagaa tcacgacaac tgttgcatgt 480
123 aacatggatc tgtctaaata ccccatggac acacagacat gcaagttgca gctggaaagc 540
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125 ggactggaac acctgcggct tgctcagtac accatagagc ggtatttcac cttagtcacc 660
126 agatcgacag aggagacagg aaattacact agattggtct tacagtttga gcttcggagg 720
127 aatgttctgt atttcatttt ggaaacctac gttccctcca ctttcttggg ggtgttgtcc 780
128 tgggtttcat tttggattct tctcgattca gtccctgcaa gaacctgcat tggagtgcag 840
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132 gggacaacaa aggaagtaga agaagtcagt attactaata tcatcaacag ctccatctcc 1080
133 agctttaaac ggaagatcag ctttgccagc attgaaattt ccagcgacaa cgttgactac 1140
134 agtgacttga caatgaaaac cagcgacaag ttcaagtttg tcttccgaga aaagatgggc 1200
135 aggattgttg attatttcac aattcaaaac ccagtaatg ttgatcacta ttccaaacta 1260
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137 tga 1323

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140 <210> SEQ ID NO: 3

141 <211> LENGTH: 440

142 <212> TYPE: PRT

143 <213> ORGANISM: Homo sapiens

145 <400> SEQUENCE: 3

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149 Glu Arg Met Cys Ile Gln Gly Ser Gln Phe Asn Val Glu Val Gly Arg
150           20           25           30
152 Ser Asp Lys Leu Ser Leu Pro Gly Phe Glu Asn Leu Thr Ala Gly Tyr
153           35           40           45
155 Asn Lys Phe Leu Arg Pro Asn Phe Gly Gly Glu Pro Val Gln Ile Ala
156           50           55           60
158 Leu Thr Leu Asp Ile Ala Ser Ile Ser Ser Ile Ser Glu Ser Asn Met
159   65           70           75           80
161 Asp Tyr Thr Ala Thr Ile Tyr Leu Arg Gln Arg Trp Met Asp Gln Arg
162           85           90           95
164 Leu Val Phe Glu Gly Asn Lys Ser Phe Thr Leu Asp Ala Arg Leu Val
165           100          105          110
167 Glu Phe Leu Trp Val Pro Asp Thr Tyr Ile Val Glu Ser Lys Lys Ser
168           115          120          125
170 Phe Leu His Glu Val Thr Val Gly Asn Arg Leu Ile Arg Leu Phe Ser
171           130          135          140
173 Asn Gly Thr Val Leu Tyr Ala Leu Arg Ile Thr Thr Thr Val Ala Cys
174 145          150          155          160

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176 Asn Met Asp Leu Ser Lys Tyr Pro Met Asp Thr Gln Thr Cys Lys Leu
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179 Gln Leu Glu Ser Trp Gly Tyr Asp Gly Asn Asp Val Glu Phe Thr Trp
180          180          185          190
182 Leu Arg Gly Asn Asp Ser Val Arg Gly Leu Glu His Leu Arg Leu Ala
183          195          200          205
185 Gln Tyr Thr Ile Glu Arg Tyr Phe Thr Leu Val Thr Arg Ser Gln Gln
186          210          215          220
188 Glu Thr Gly Asn Tyr Thr Arg Leu Val Leu Gln Phe Glu Leu Arg Arg
189 225          230          235          240
191 Asn Val Leu Tyr Phe Ile Leu Glu Thr Tyr Val Pro Ser Thr Phe Leu
192          245          250          255
194 Val Val Leu Ser Trp Val Ser Phe Trp Ile Ser Leu Asp Ser Val Pro
195          260          265          270
197 Ala Arg Thr Cys Ile Gly Val Thr Thr Val Leu Ser Met Thr Thr Leu
198          275          280          285
200 Met Ile Gly Ser Arg Thr Ser Leu Pro Asn Thr Asn Cys Phe Ile Lys
201          290          295          300
203 Ala Ile Asp Val Tyr Leu Gly Ile Cys Phe Ser Phe Val Phe Gly Ala
204 305          310          315          320
206 Leu Leu Glu Tyr Ala Val Ala His Tyr Ser Ser Leu Gln Gln Met Ala
207          325          330          335
209 Ala Lys Asp Arg Gly Thr Thr Lys Glu Val Glu Glu Val Ser Ile Thr
210          340          345          350
212 Asn Ile Ile Asn Ser Ser Ile Ser Ser Phe Lys Arg Lys Ile Ser Phe
213          355          360          365
215 Ala Ser Ile Glu Ile Ser Ser Asp Asn Val Asp Tyr Ser Asp Leu Thr
216          370          375          380
218 Met Lys Thr Ser Asp Lys Phe Lys Phe Val Phe Arg Glu Lys Met Gly
219 385          390          395          400
221 Arg Ile Val Asp Tyr Phe Thr Ile Gln Asn Pro Ser Asn Val Asp His
222          405          410          415
224 Tyr Ser Lys Leu Leu Phe Pro Leu Ile Phe Met Leu Ala Asn Val Phe
225          420          425          430
227 Tyr Trp Ala Tyr Tyr Met Tyr Phe
228          435          440
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232 <211> LENGTH: 15
233 <212> TYPE: PRT
234 <213> ORGANISM: Artificial Sequence
236 <220> FEATURE:
237 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
239 <400> SEQUENCE: 4
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244 <210> SEQ ID NO: 5
245 <211> LENGTH: 15
246 <212> TYPE: PRT
247 <213> ORGANISM: Artificial Sequence

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Input Set : A:\A67860-3.txt

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250 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic

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257 <210> SEQ ID NO: 6

258 <211> LENGTH: 3290

259 <212> TYPE: DNA

260 <213> ORGANISM: Homo sapiens

262 <400> SEQUENCE: 6

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265 tgcgcggacg agggcgctgg gccgggttcc ggcttcggcc acagcttttt ttctcaaggt 180
266 gcaatgaaag ccttccacac ttctgtgtgt gtcttctgg tgtttgggag tgtctctgaa 240
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268 gctgaatttg aggatgtcat ggaagactct gttactgaat ctctcaacg ggtcataatc 360
269 actgaagatg atgaagatga gacctgtg gagttggaag ggcaggatga aaaccaagaa 420
270 ggagattttg aagatgcaga taccaggag ggagatactg agagtgaacc atatgatgat 480
271 gaagaatttg aaggttatga agacaaacca gatacttctt ctagcaaaaa taaagaccca 540
272 ataacgattg ttgatgttcc tgcacacctc cagaacagct gggagagtta ttatctagaa 600
273 attttgatgg tgaactgtct gcttgcctat atcatgaatt acatcattgg gaagaataaa 660
274 aacagtcgcc ttgcacaggc ctggtttaac actcataggg agcttttgga gagcaacttt 720
275 acttttagtg gggatgatgg aactaacaaa gaagccacaa gcacaggaaa gttgaaccag 780
276 gagaatgagc acatctataa cctgtggtgt tctggtcgag tgtgctgtga gggcatgctt 840
277 atccagctga ggttccctca gagacaagac ttactgaatg tcttgccccg gatgatgagg 900
278 ccagtgaagt atcaagtga aataaaagta accatgaatg atgaagacat ggatacctac 960
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301 ggaaaattct agggacagga gcatcatttt ttccttacct gataccacga accagtgaca 2340

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Use of n and/or Xaa has been detected in the Sequence Listing.
 → The Sequence Listing to insure a corresponding
 explanation is presented in the <220> to <223> fields of
 each sequence using n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/525,361A

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Input Set : A:\A67860-3.txt

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L:1174 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32
L:1175 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32
L:1796 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38
L:1883 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39
L:2652 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:53
L:2992 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:56